

EX. A

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

ART+COM INNOVATIONPOOL GMBH,	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. 14-217 (RGA)
	)	
GOOGLE INC.,	)	
	)	
Defendant.	)	

**RESTRICTED CONFIDENTIAL SOURCE CODE**

**REBUTTAL EXPERT REPORT OF DR. MICHAEL GOODCHILD ON  
NONINFRINGEMENT OF U.S. PATENT NO. RE44,550**

**RESTRICTED CONFIDENTIAL SOURCE CODE**

**TABLE OF CONTENTS**

	<b>Page</b>
I. INTRODUCTION .....	1
II. QUALIFICATIONS.....	1
A. Prior Testimony.....	3
B. Compensation .....	3
C. Preparation for the Report.....	3
III. '550 PATENT SUMMARY .....	5
IV. BASIS FOR OPINIONS.....	9
A. Level of Ordinary Skill in the Art.....	10
B. Legal Bases for Opinions.....	11
V. Claim Construction .....	12
VI. THE ACCUSED PRODUCTS .....	14
A. Overview of Earth 7.....	15
B. Overview of Mirth .....	18
C. Overview of Globe.....	19
VII. THE ACCUSED PRODUCTS DO NOT SATISFY THE CLAIMED LIMITATIONS OF THE '550 PATENT .....	21
A. Claim 1.....	21
B. Claims 3, 46, 61, and 83 .....	45
C. Claim 14.....	51
D. Claim 25.....	52
E. Claim 27.....	53
F. Claim 28.....	53

**RESTRICTED CONFIDENTIAL SOURCE CODE**

G.	Claim 29.....	54
H.	Claim 30.....	56
I.	Claim 32.....	57
J.	Claim 35.....	58
K.	Claim 43.....	59
L.	Claims 48 and 63 .....	59
M.	Claim 51.....	61
N.	Claim 53.....	63
O.	Claim 58.....	63
P.	No Infringement Under Any Legal Theory .....	63
VIII.	ADDITIONAL NON-INFRINGEMENTALTERNATIVES .....	65
IX.	ANALYSIS OF TECHNOLOGY RELATED TO CERTAIN AGREEMENTS.....	65
A.	Skyline .....	66
B.	Transcenic .....	68
C.	IP Innovation.....	70
D.	SourceProse.....	71
E.	View 360 .....	73
F.	Stanford.....	79
G.	Activision.....	81
X.	CONCLUSION.....	82

**RESTRICTED CONFIDENTIAL SOURCE CODE****4. “1(c) requesting data for the field of view from at least one of the plurality of spatially distributed data sources”**

94. Step 1(c) recites “requesting data for the field of view from at least one of the plurality of spatially distributed data sources.” As construed by the Court, this step has its plain and ordinary meaning. In addition, as construed by the Court, “*plurality of spatially distributed data sources*” means “plurality of geographically separate data sources.” For at least the reasons discussed below, the Accused Products do not meet step 1(c).

**a) The Accused Products Do Not Request Data from “at least one of the spatially distributed data sources.”**

95. The Accused Products do not request data from “at least one of the spatially distributed data sources” for at least the same reasons discussed above in Section VII.A.2. For example, (1) the Accused Products do not provide a plurality of data sources to request data from; (2) they do not provide “*spatially distributed data sources*” (and, thus, cannot request data from “*spatially distributed data sources*”); (3) Dr. Castleman has failed to show that Google provides data sources for certain implementations of the Accused Products; and (4) Dr. Castleman fails to identify how the Accused Products include “*spatially distributed data sources*.”

**b) Dr. Castleman Fails to Identify How the Accused Products Meet the Recited Limitation**

96. Dr. Castleman fails to identify how the Accused Products meet step 1(c). As an initial matter, Dr. Castleman includes general statements regarding the Accused Products without any specific support and separately includes a collection of citations without any explanation or analysis with regard to how these citations meet the recited limitation. Castleman at 20, 55, 94.

[REDACTED]

[REDACTED]

**RESTRICTED CONFIDENTIAL SOURCE CODE**

[REDACTED]

[REDACTED]

[REDACTED]

97. Dr. Castleman has failed to show that the Accused Products “*request[] data .... from at least one of the plurality of spatially distributed data sources.*” Dr. Castleman cites generally to certain documents and source code with regard to this limitation. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] [REDACTED] [REDACTED]

[REDACTED] Further, Dr. Castleman cites to certain portions of Mr. Mercay and Mr. Rohlf deposition transcripts, however, as discussed above in Section VII.A.2, this testimony actually supports my opinion that the Accused Products do not include “*a plurality of spatially distributed data sources.*” Indeed, as explained by one of the named inventors, Mr. Mayer, fetching data from one source does not meet the claimed limitation and “doesn’t make sense” in the context of the claim. *See, e.g.,* Dep. Tr. of P. Mayer (Jul. 9, 2015) at 90:16-91:2 (stating that “[t]here is no such thing [as a spatially distributed data source]. You only use the term in the plural. That means you are always talking about sources because you can’t distribute only one source.”).

---

[REDACTED]

[REDACTED]

**RESTRICTED CONFIDENTIAL SOURCE CODE**

**5. “1(e) representing the data for the field of view in a pictorial representation having one or more sections”**

98. Step 1(e) recites “*representing the data for the field of view in a pictorial representation having one or more sections.*” As construed by the Court, “*representing the data for the field of view in a pictorial representation having one of more sections*” means “displaying the data for the field of view in a pictorial representation having one or more sections.” For at least the reasons discussed below, the Accused Products do not meet step 1(e).

**a) The Accused Products Do Not Represent the Identified “Data For the Field of View in a Pictorial Representation Having One or More Sections”**

99. The Accused Products do not “*represent[]*” the identified “*data for the field of view in a pictorial representation.*” The recited limitation requires “[*displaying*] the data for the field of view in a pictorial representation having one or more sections.” [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**RESTRICTED CONFIDENTIAL SOURCE CODE**

[REDACTED]

[REDACTED]

[REDACTED]

100. Indeed, in construing this limitation, the Court stated that “the data must be displayed in some fashion” and rejected Plaintiff’s argument that “the data will ultimately be displayed.” D.I. 148 at 16-17 (further stating that “this construction captures the requirement that the data be displayed...”). With regard to the Accused Products, the node metadata is never displayed in any fashion.

***b) Google Does Not Perform the Step of “Representing the Data for the Field of View in a Pictorial Representation Having One or More Sections”***

101. Google does not perform the step of “*representing the data for the field of view in a pictorial representation having one or more sections.*” As construed by the Court, this limitation requires “displaying” data. Despite Dr. Castleman’s unsupported opinion to the contrary,<sup>34</sup> the Court rejected the idea that this limitation is met when “the data will ultimately be displayed.” D.I. 148 at 15. Accordingly, a POSITA would understand this limitation to require performing the actual step of displaying “*the data for the field of view*” and Google does not perform this step. Instead, as Dr. Castleman seems to acknowledge,<sup>35</sup> any displaying of data is performed either by the user’s device (*e.g.*, mobile device, computer, or other device) and/or the user.

---

<sup>34</sup> Dr. Castleman incorrectly states that “[t]his step...is carried out by the [Accused Products] when it a [sic] builds an image for ultimate display to the user.” Castleman at 23. 59, 98.

<sup>35</sup> For example, Dr. Castleman cites to evidence of displaying of data being performed by the GPU in the user’s device. *See, e.g.*, Castleman at 99.



**RESTRICTED CONFIDENTIAL SOURCE CODE**

102. [REDACTED]

[REDACTED] Castleman at 64. A number of steps must be undertaken by third-party software (OpenGL or WebGL), firmware (the client's graphic processing unit or GPU), and hardware (the client's display screen). The processed data is passed to the device's GPU for rendering into the pixels of the device's screen. Thus, it is third-party software, firmware, and hardware that is responsible for the "pictorial representation" of the claim, and not the Accused Products.

103. Despite this step being performed by the user and/or user's hardware/firmware/software, Dr. Castleman includes a conclusory statement in his report that, "if one were to find...that this step is not literally carried out by the [Accused Products], it is [his] opinion that the [Accused Products] perform substantially the same function...in substantially the same way...with substantially the same result." Castleman at 24, 59, 98. Dr. Castleman provides no support for this conclusory statement and, thus, I reserve my right to respond if he does.

***c) Dr. Castleman Fails to Identify How the Accused Products Meet the Recited Limitation***

104. Dr. Castleman fails to identify how the Accused Products meet step 1(e). As an initial matter, Dr. Castleman includes general statements regarding the Accused Products without any specific support and separately includes a collection of citations without any explanation or analysis with regard to how these citations meet the recited limitation. Castleman at 23-26, 58-64, 97-98.

105. As discussed above, Dr. Castleman's opinion is that the recited "*data for the field of view*" is met by node metadata, based on his statements with regard to, for example, steps

**RESTRICTED CONFIDENTIAL SOURCE CODE**

detail or spatial precision contained in an image.”<sup>36</sup> For at least the reasons discussed below, the Accused Products do not meet step 1(f).<sup>37</sup>

***a) The Accused Products Do Not Perform “dividing each of the one or more sections having image resolutions below a desired image resolution into a plurality of smaller sections” Prior To “requesting higher resolution space-related data for each of the smaller sections.”***

107. The Accused Products do not perform the recited “dividing each of the one or more sections having image resolutions below a desired resolution into a plurality of smaller sections [prior to] requesting higher resolution space-related data for each of the smaller sections.” As construed by the Court, this step requires performance in a specific order. That is, each section with an image resolution below the desired image resolution must be divided before higher resolution data is requested for each of the smaller/sub-divided child sections. In a hierarchical data structure, each child/sub-layer (as one descends the tree) contains information related to higher resolution data.

108. With regard to the claimed invention, as construed by the Court, each node on a given layer/level which is below the desired resolution must be traversed and divided prior to “requesting higher resolution space-related data for each of the smaller sections” (*i.e.*, before requesting data for any of the child nodes on a lower layer). In short, the claimed invention requires traversing each parent node of a given resolution/layer before traversing any child/sub-nodes.<sup>38</sup> This method of traversal is commonly known in the art as a “breadth-first” traversal of a hierarchical data structure (illustrated below).

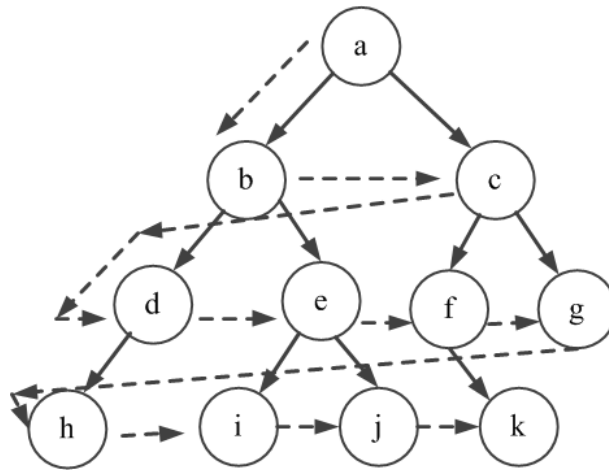
---

<sup>36</sup> The Court construed term “*image resolutions*” to mean the plural of “*image resolution*.”

<sup>37</sup> Step 1(f) includes certain requirements that are recited and/or overlap with the preceding steps (1(a)-1(e)). Therefore, my opinions with regard to the preceding limitations are incorporated herein by reference.

<sup>38</sup> *See also* ’550 patent at 2:18-43; 7:55-8:17.

**RESTRICTED CONFIDENTIAL SOURCE CODE**



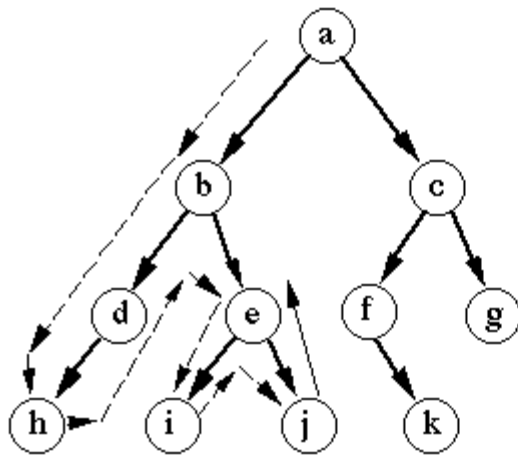
[REDACTED]

[REDACTED]

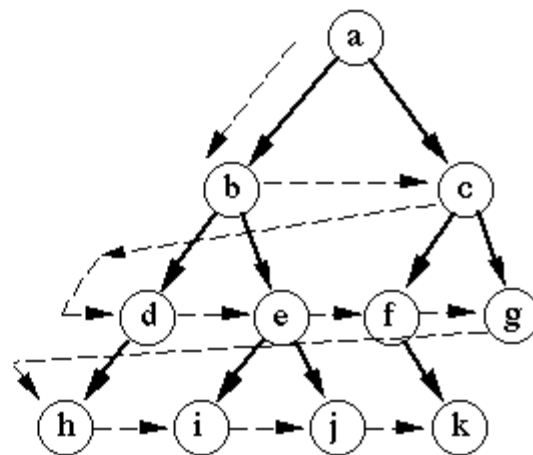
[REDACTED]

[REDACTED]

[REDACTED]



Depth-first search



Breadth-first search

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]